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REVISED LIST OF NEW ENGLAND HEPATICAE.

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ABOUT ten years ago the writer published a preliminary list of New England Hepaticae.¹ In this list 123 species were reported, 75 being accredited to Maine, 81 to New Hampshire, 67 to Vermont, 76 to Massachusetts, 65 to Rhode Island, and 94 to Connecticut; while 31 species were noted from all six of the New England states. Since the publication of this list the study of the New England Hepaticae has continued, many additional species have been brought to light, certain species already recognized as members of the flora have been more narrowly circumscribed, while certain other species have been reduced to synonymy. The writer has attempted to call attention to these various additions and changes in a series of "Notes on New England Hepaticae," published in this journal. The introductory number of this series, dating from November, 1902 (4: 207-213), had already appeared before the publication of the preliminary list. The second number was published in August and September, 1904 (6: 165-174, 185-191, *pl.* 57); the third in March, 1905 (7: 52-58); the fourth in February, 1906 (8: 34-45); the fifth in March and April, 1907 (9: 56-60, 65-73, *pl.* 73); the sixth in October, 1908 (10: 185-193); the seventh in October, 1909 (11: 185-195); the eighth in October, 1910 (12: 193-204); the ninth in January, 1912 (14: 1-18); and the tenth in November, 1912 (14: 209-225). Much of the information to be found in these Notes is now incorporated in the following revised list. As in the preliminary list the sign + indicates that an herbarium specimen has been seen, the sign - that a printed record has been found.

¹ Preliminary Lists of New England Plants,— XI, Hepaticae. RHODORA 5: 170-173. 1903.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
RICCIACEAE.						
<i>Riccia arvensis</i> Aust.					—	+
“ <i>Austini</i> Steph.					—	+
“ <i>dictyospora</i> M. A. Howe						+
“ <i>hirta</i> Aust.						+
“ <i>Lescuriana</i> Aust.						+
“ <i>sorocarpa</i> Bisch.						+
<i>Ricciella crystallina</i> (L.) Warnst.						+
“ <i>fluitans</i> (L.) A. Br.	+	+	+	+	+	+
“ <i>membranacea</i> (Lindenb. & Gottsche) Evans						+
“ <i>Sullivantii</i> (Aust.) Evans	+	+	+	+	+	+
<i>Ricciocarpus natans</i> (L.) Corda	+	+	+	+	+	+
MARCHANTIACEAE.						
<i>Asterella tenella</i> (L.) Beauv.	+	+	+	+	+	+
<i>Conocephalum conicum</i> (L.) Dumort.	+	+	+	+	+	+
<i>Grimaldia fragrans</i> (Balb.) Corda			+	—	+	+
<i>Lunularia cruciata</i> (L.) Dumort.			+	+	+	+
<i>Marchantia polymorpha</i> L.	+	+	+	+	+	+
<i>Neesiella pilosa</i> (Hornem.) Schiffn.			+			
<i>Preissia quadrata</i> (Scop.) Nees	+	+	+	+	+	+
<i>Reboulia hemisphaerica</i> (L.) Raddi	+	+	+	+	+	+
METZGERIACEAE.						
<i>Blasia pusilla</i> L.	+	+	+	+	+	+
<i>Fossombronina foveolata</i> Lindb.	+	+		+	+	+
“ <i>salina</i> Lindb.					—	+
“ <i>Wondraczekii</i> (Corda) Dumort.		+	+	+		+
<i>Metzgeria conjugata</i> Lindb.	+	+	+	+	—	+
“ <i>crassipilis</i> (Lindb.) Evans			+	+		+
“ <i>furcata</i> (L.) Dumort.	+	+	+			+
“ <i>pubescens</i> (Schrank) Raddi		+	+			
<i>Pallavicinia Flotowiana</i> (Nees) Lindb.	+			+		
“ <i>Lyellii</i> (Hook.) S. F. Gray	+	+	+	+	+	+
<i>Pellia epiphylla</i> (L.) Corda	+	+	+	+	+	+
“ <i>Fabroniana</i> Raddi			+			+
“ <i>Neesiana</i> (Gottsche) Limpr.	+	+				+
<i>Riccardia latifrons</i> Lindb.	+	+	+	+		+
“ <i>multifida</i> (L.) S. F. Gray	+	+		+	—	+
“ <i>palmata</i> (Hedw.) Carruth.	+	+		—	—	+
“ <i>punguis</i> (L.) S. F. Gray	+	+	+		+	+
“ <i>sinuata</i> (Dicks.) Trevis.				+	+	+

JUNGERMANNIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Anthelia Juratzkana</i> (Limpr.) Trevis.		+				
<i>Bazzania tricrenata</i> (Wahl.) Trevis.	+	+	+	+		+
“ <i>trilobata</i> (L.) S. F. Gray	+	+	+	+	+	+
<i>Blepharostoma trichophyllum</i> (L.) Dumort.	+	+	+	+		+
<i>Calypogeia Neesiana</i> (Massal. & Carest.) C. Müll.	+	+	+	+		+
“ <i>sphagnicola</i> (Arn. & Perss.) Warnst. & Loeske			+			+
“ <i>suecica</i> (Arn. & Perss.) C. Müll.	+	+				+
“ <i>Sullivantii</i> Aust.				+	+	+
“ <i>tenuis</i> (Aust.) Evans	+	+	+	+	+	+
“ <i>Trichomanis</i> (L.) Corda	+	+	+	+	+	+
<i>Cephalozia bicuspidata</i> (L.) Dumort.	+	+	+	+		+
“ <i>connivens</i> (Dicks.) Lindb.	+	+	+	+	+	+
“ <i>curvifolia</i> (Dicks.) Dumort.	+	+	+	+	-	+
“ <i>fluitans</i> (Nees) Spruce	+	+	+		+	+
“ <i>Francisci</i> (Hook.) Dumort.	+					
“ <i>Macounii</i> Aust.	+	+				
“ <i>media</i> Lindb.	+	+	+	+	+	+
“ <i>pleniceps</i> (Aust.) Lindb.	+	+	+			+
“ <i>serriflora</i> Lindb.	+	+	+	+	-	+
<i>Cephaloziella bifida</i> (Schreb.) Schiffn.				+		+
“ <i>byssacea</i> (Roth) Warnst.		+		+		+
“ <i>elachista</i> (Jack) Schiffn.	+	+	+	+	+	+
“ <i>Hampeana</i> (Nees) Schiffn.	+	+	+	+		+
“ <i>myriantha</i> (Lindb.) Schiffn.	+	+	+	+	+	+
“ <i>papillosa</i> (Douin) Schiffn.				+		+
“ <i>Sullivantii</i> (Aust.) Evans		+		+		
<i>Chiloscyphus fragilis</i> (Roth) Schiffn.	+	+		+		+
“ <i>pallescens</i> (Ehrh.) Dumort.	+	+		+	-	+
“ <i>polyanthus</i> (L.) Corda	+	-	-	-	-	+
“ <i>rivularis</i> (Schrad.) Loeske		+	+	+	+	+
<i>Cololejeunea Biddlecomiae</i> (Aust.) Evans	+	+	+	+	-	+
<i>Diplophylleia albicans</i> (L.) Trevis.	+					
“ <i>apiculata</i> Evans	+			+	+	+
“ <i>taxifolia</i> (Wahl.) Trevis.	+	+	+	+		+
<i>Frullania Asagrayana</i> Mont.	+	+	+	+	+	+
“ <i>Brittoniae</i> Evans	+	+	+	+	+	+
“ <i>eboracensis</i> Gottsche	+	+	+	+	+	+
“ <i>inflata</i> Gottsche						+
“ <i>Oakesiana</i> Aust.	+	+	+			
“ <i>plana</i> Sulliv.					-	+
“ <i>riparia</i> Hampe		+	+	-		+

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Frullania saxicola</i> Aust.						+
“ <i>Selwyniana</i> Pears.	+					
“ <i>squarrosa</i> (R. Bl. & N.) Dumort.					-	+
“ <i>Tamarisci</i> (L.) Dumort.	+			+		+
<i>Geocalyx graveolens</i> (Schrad.) Nees	+	+	+	+	+	+
<i>Gymnomitrium concinnatum</i> (Lightf.) Corda	+	+				
“ <i>corallioides</i> Nees		+				
<i>Harpanthus scutatus</i> (Web. f. & Mohr) Spruce	+	+	+	+	-	+
<i>Jamesoniella autumnalis</i> (DC.) Steph.	+	+	+	+	+	+
<i>Jubula pennsylvanica</i> (Steph.) Evans	+	+	+	+	-	+
<i>Jungermannia cordifolia</i> Hook.		+				+
“ <i>lanceolata</i> L.	+	+	+	+	-	+
“ <i>pumila</i> With.	+	+	+	+	-	+
“ <i>sphaerocarpa</i> Hook.		+				
<i>Lejeunea cavifolia</i> (Ehrh.) Lindb.	+	+	+	+	-	+
<i>Leucolejeunea clypeata</i> (Schwein.) Evans		+		+		+
“ <i>unciloba</i> (Lindenb.) Evans					+	
<i>Lepidozia reptans</i> (L.) Dumort.	+	+	+	+	+	+
“ <i>setacea</i> (Web.) Mitt.	+	+	+	+		+
“ <i>sylvatica</i> Evans	+	-		+	+	+
<i>Lophocolea bidentata</i> (L.) Dumort.	-		-	+	-	+
“ <i>heterophylla</i> (Schrad.) Dumort.	+	+	+	+	+	+
“ <i>minor</i> Nees	+	+	+	+	+	+
<i>Lophozia alpestris</i> (Schleich.) Evans	+	+	+			+
“ <i>attenuata</i> (Mart.) Dumort.	+	+	+			+
“ <i>badensis</i> (Gottsche) Schiffn.			+			+
“ <i>barbata</i> (Schmid.) Dumort.	+	+	+	+		+
“ <i>bicrenata</i> (Schmid.) Dumort.	+	+	+	+	+	+
“ <i>confertifolia</i> Schiffn.	+		+			
“ <i>excisa</i> (Dicks.) Dumort.	+	+			+	+
“ <i>Floerkei</i> (Web. f. & Mohr) Schiffn.		+	+			
“ <i>Hatcheri</i> (Evans) Steph.	+					
“ <i>heterocolpa</i> (Thed.) M. A. Howe	+					
“ <i>incisa</i> (Schrad.) Dumort.	+	+	+	+	-	+
“ <i>inflata</i> (Huds.) M. A. Howe	+	+	+			+
“ <i>Kaurini</i> (Limpr.) Steph.			+			
“ <i>Kunzeana</i> (Hüben.) Evans		+				
“ <i>longidens</i> (Lindb.) Macoun	+	+				
“ <i>longiflora</i> (Nees) Schiffn.	+	+				
“ <i>lycopodioides</i> (Wallr.) Cogn.	+	+				
“ <i>marchica</i> (Nees) Steph.	+	+	+			+
“ <i>Mildeana</i> (Gottsche) Schiffn.	+	+	+	+		+
“ <i>obtusa</i> (Lindb.) Evans	+					
“ <i>porphyroleuca</i> (Nees) Schiffn.	+	+	+	+		+

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Lophozia quinquentata</i> (Huds.) Cogn.	+	+	+			+
“ <i>ventricosa</i> (Dicks.) Dumort.	+	+	+	+	-	+
<i>Marsupella aquatica</i> (Lindenb.) Schiffn.	+	+				
“ <i>emarginata</i> (Ehrh.) Dumort.	+	+	+	+		+
“ <i>sparsifolia</i> (Lindb.) Dumort.		+				
“ <i>sphacelata</i> (Gieseke) Dumort.		+	+			
“ <i>Sullivantii</i> (DeNot.) Evans	+	+		+		+
“ <i>ustulata</i> (Hüben.) Spruce	+	+				
<i>Mylia anomala</i> (Hook.) S. F. Gray	+	+	+		-	+
“ <i>Taylori</i> (Hook.) S. F. Gray	+	+	+			
<i>Nardia crenulata</i> (Smith) Lindb.	+	+	+	+	+	+
“ <i>crenuliformis</i> (Aust.) Lindb.						+
“ <i>Geoscyphus</i> (DeNot.) Lindb.		+		+		
“ <i>hyalina</i> (Lyell) Carringt.	+	+	+	+		+
“ <i>obovata</i> (Nees) Carringt.	+	+	+			
“ <i>scalaris</i> (Schrad.) S. F. Gray	+					
<i>Odontoschisma denudatum</i> (Mart.) Dumort.	+	+	+	+	-	+
“ <i>elongatum</i> (Lindb.) Evans	+	+				
“ <i>prostratum</i> (Swartz) Trevis.				+	+	+
<i>Pedinophyllum interruptum</i> (Nees) Schiffn.						+
<i>Plagiochila asplenioides</i> (L.) Dumort.	+	+	+	+	+	+
“ <i>Sullivantii</i> Gottsche		+				+
<i>Porella pinnata</i> L.	+	+	+	+	+	+
“ <i>platyphylla</i> (L.) Lindb.	+	+	+	+	+	+
“ <i>rivularis</i> (Nees) Trevis.			+			+
<i>Ptilidium ciliare</i> (L.) Nees	+	+	+	+	-	+
“ <i>pulcherrimum</i> (Web.) Hampe	+	+	+	+	+	+
<i>Radula complanata</i> (L.) Dumort.	+	+	+	+	+	+
“ <i>obconica</i> Sulliv.			+			+
“ <i>tenax</i> Lindb.	+	+		+	-	+
<i>Scapania apiculata</i> Spruce	+	+				
“ <i>convexula</i> C. Müll.	+					
“ <i>curta</i> (Mart.) Dumort.	+	+	+	+		+
“ <i>dentata</i> Dumort.		+	+			+
“ <i>glaucocephala</i> (Tayl.) Aust.		+				
“ <i>gracilis</i> (Lindb.) Kaalaas	+	+				
“ <i>irrigua</i> (Nees) Dumort.	+	+	+			+
“ <i>nemorosa</i> (L.) Dumort.	+	+	+	+	+	+
“ <i>paludosa</i> C. Müll.		+	+	+		
“ <i>subalpina</i> (Nees) Dumort.	+	+				
“ <i>umbrosa</i> (Schrad.) Dumort.	+	+				
“ <i>undulata</i> (L.) Dumort.	+	+	+	+	+	+
<i>Sphenolobus exsectaeformis</i> (Breidl.) Steph.	+	+	+			
“ <i>exsectus</i> (Schmid.) Steph.	+	+	+	+		+

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
Sphenolobus Hellerianus (Nees) Steph.	+	+	+		-	+
“ Michauxii (Web. f.) Steph.	+	+	+	+		+
“ minutus (Crantz) Steph.	+	+	+			
Temnoma setiforme (Ehrh.) M. A. Howe	+	+	+			
Trichocolea tomentella (Ehrh.) Dumort.	+	+	+	+	+	+

ANTHOCEROTACEAE.

Anthoceros carolinianus Michx.						+
“ crispulus (Mont.) Douin						+
“ levis L.	+	+	+	+	+	+
“ Macounii M. A. Howe	+					+
“ punctatus L.	+	+	+	+		+
Notothylas orbicularis (Schwein.) Sulliv.		+	+	+	-	+

NOTES ON THE PRECEDING LIST.

It will be noted that the list just given includes 177 species, a gain of 54, or nearly 44 per cent., over the preliminary list. From Maine 123 species are now listed, a gain of 64 per cent.; from New Hampshire 130 species, a gain of about 60 per cent.; from Vermont 109 species, a gain of about 63 per cent.; from Massachusetts 97 species, a gain of about 29 per cent.; from Rhode Island 77 species, a gain of about 18 per cent.; and from Connecticut 134 species, a gain of about 44 per cent. The number of species now known to be common to all six states is 53, equivalent to a gain of nearly 71 per cent.

If the revised list is compared with the preliminary list a large number of differences will be observed. Most of these are due to the additions; the others indicate reductions to synonymy or other changes in nomenclature of various sorts. For the sake of convenience these are summarized below, references being given to the writer's Notes, where more complete discussions may be found. The Roman numeral in each case refers to the number in the series, the Arabic numeral to the page.

Additions. *Riccia Austini* (IX, 4); *R. dictyospora* (IX, 6); *R. hirta* (IX, 8); *R. Lescuriana* (IX, 10); *R. sorocarpa* (VIII, 193); *Ricciella membranacea* (VIII, 196); *Neesiella pilosa* (X, 210); *Metzgeria crassipilis* (VII, 188); *M. furcata* (VII, 185); *M. pubescens* (VI, 185); *Pallavicinia Flotowiana* (II, 165); *Pellia Fabroniana* (VII, 189); *P. Neesiana* (VII, 190); *Calypogeia Neesiana* (VII, 193);

C. sphagnicola (V, 65); *C. suecica* (V, 66); *C. tenuis* (V, 69, pl. 73, f. 9-14); *Cephaloziella bifida* (X, 220); *C. elachista* (VII, 191); *C. Hampeana* (VII, 192); *C. papillosa* (X, 222); *C. Sullivantii* (VI, 189; also III, 55); *Chiloscyphus fragilis* (X, 217); *Ch. rivularis* (X, 219); *Frullania inflata* (VIII, 201); *F. saxicola* (VIII, 202); *F. Selwyniana* (VI, 191); *Jungermannia cordifolia* (II, 170); *Lepidozia sylvatica* (II, 186, pl. 57); *Lophozia badensis* (VIII, 197; also IV, 35); *L. confertifolia* (V, 59); *L. excisa* (IV, 34); *L. Hatcheri* (X, 210; also VI, 188); *L. heterocolpa* (X, 211); *L. Kaurini* (VIII, 198); *L. Kunzeana* (III, 52); *L. longidens* (V, 59); *L. longiflora* (VI, 189); *L. Mildeana* (VIII, 199); *L. obtusa* (X, 212); *L. porphyroleuca* (IV, 36); *Marsupella aquatica* (II, 167; also VI, 186)¹; *M. sparsifolia* (III, 52); *M. Sullivantii* (V, 57; also II, 167); *Nardia crenuliformis* (VI, 186); *N. scalaris* (IX, 11); *Odontoschisma elongatum* (IX, 13); *Pedino-phyllum interruptum* (VIII, 200); *Ptilidium pulcherrimum* (IV, 42); *Scapania apiculata* (V, 71); *S. dentata* (IV, 41); *S. glaucocephala* (VII, 194); *S. gracilis* (IV, 42); *Sphenolobus Hellerianus* (II, 172); *Anthoceros carolinianus* (X, 223); *A. crispulus* (IX, 16); *A. Macounii* (VI, 191).

Reductions to synonymy and other changes of names. *Riccia crystallina*, *R. fluitans*, and *R. Sullivantii* (of the preliminary list) are now placed in the genus *Ricciella* (V, 56, 57); *Archilejeunea clypeata* and *A. Sellowiana* are now *Leucolejeunea clypeata* and *L. uncioba*, respectively (VI, 190); *Bazzania triangularis* is now *B. tricrenata* (VI, 190); *Cephalozia catenulata* (of list) is now *C. serriflora* (II, 173); *C. divaricata* is now *Cephaloziella byssacea* (X, 221); *C. Jackii* is now *Cephaloziella myriantha* (VI, 190; also III, 55); *C. lunulaefolia* is now *C. media*²; *Chiloscyphus ascendens* is now included under *Ch. pallescens* (III, 53; X, 212); *Frullania virginica* is now included under *F. eboracensis* (IV, 44); *Jubula Hutchinsiae* (of list) is now *J. pennsylvanica* (III, 55); *Kantia Sullivantii* and *K. Trichomanis* are now *Calypogeia Sullivantii* and *C. Trichomanis*, respectively (V, 67, 70); *Lepidozia sphagnicola* is now included under *L. setacea*.

¹ In the second place quoted the writer proposed for this species the combination *M. robusta* (DeNot.) Evans, based on *Sarcoscyphus Ehrharti*, var. *robustus* DeNot., raised to specific rank, as *Nardia robusta*, by Trevisan in 1877, and therefore earlier than Schiffner's *M. aquatica* of 1896. Massalongo (Atti Reale Ist. Veneto 69^o: 146. 1909), however, has since shown that the var. *robustus* DeNot. represents the typical form of *M. emarginata*. It therefore becomes necessary to restore the name *M. aquatica* to the present species.

² The reasons for this change have not yet been discussed in the writer's Notes.

(II, 185);¹ *Lophocolea Austini* is now included under *L. heterophylla* (IV, 37); *Lophozia gracilis* is now *L. attenuata* (VI, 187); *L. Lyoni* is now *L. quinquedentata*¹; *Nardia haematosticta* is now *N. Geoscyphus* (V, 57).

YALE UNIVERSITY.

PHILOLOGICAL ASPECTS OF THE "PLANTS OF WINELAND THE GOOD."

A. LEROY ANDREWS.

A CONSIDERABLE time has elapsed since the appearance of Professor Fernald's preliminary study upon the Norse discovery of America,² but as the author's promised greater work upon the subject is not yet forthcoming the publication of the following considerations may not be without interest to those who have read his article.

It may be said at the outset that all attempts to find the Vínland of the Norsemen in New England have been unsuccessful. The evidence for Nova Scotia seemed relatively stronger, nor would the conclusions of Fernald's preliminary study, even if accepted in all their details, preclude the possibility of the Norsemen having come as far south as Nova Scotia, though the author seems unwilling to believe that they did.

Of the many works devoted in whole or in part to the Norse discovery of our continent the one possessing value beyond all others is that of the Norwegian historian, Gustav Storm, published in 1887,³ who after a critical survey of all available material concluded that the Norsemen came as far south in America as Nova Scotia, but hardly further. Reeves, whose book⁴ forms the basis of Fernald's study, was a young American scholar of promise who met with an untimely

¹ The reasons for this change have not yet been discussed in the writer's Notes.

² RHODORA, xii, 17ff. 1910.

³ Aarbøger for nordisk Oldkyndighed og Historie, 2 Række, ii, 293ff.; the paper is also accessible in English in Mémoires de la Société Royale des Antiquaires du Nord viii, 307ff. 1888. For the bibliography of the Norse discovery of America see H. Hermannsson, Islandica, ii (Ithaca, N. Y.). 1909.

⁴ The Finding of Wineland the Good. London. 1890.